

from Mr. Brooke, in which it is stated that old males of the Sze-chuen Takin grow to a very large size, as, indeed, is indicated by the skin and skull sent to the Museum. Also, that in summer the long and rough orange or reddish coat is replaced by one of short greyish hair.]

#### EXPLANATION OF PLATE XLIII.

Subadult male (1) and female (2) of the Sze-chuen Takin (*Budorcas tibetanus*), in winter coat, from the mounted specimens in the British Museum.

#### 4. On an Indian Dolphin and Porpoise.

By R. LYDEKKER.

[Received September 2, 1908.]

(Plates XLIV. & XLV.\*)

Once more I am indebted to the Director—Lieut.-Colonel F. W. Dawson—of the Trevandrum Museum for sketches and measurements of certain Cetaceans recently captured on the Travancore coast. These are represented by three specimens, referable to two species; they differ to a greater or less degree from the typical forms of all the Dolphins and Porpoises hitherto described from Indian waters, and from the world generally. The most remarkable fact about the new specimens is that two of them are Bottle-nosed Dolphins, referable to *Tursiops*, of which genus, in addition to the typical *T. tursio*, I have already recognised (Proc. Zool. Soc. 1905, vol. i. pp. 125–128) three, if not indeed four, Indian species.

Col. Dawson informs me that the two examples of this apparently new Bottle-nose were caught by fishermen about six miles to the north of Trevandrum, in the spring of the present year (1908). The skeletons of both were preserved; and one of these has, at my request, been presented by Col. Dawson to the British Museum, as it seemed desirable that an apparently new form should be represented in the chief English collection.

The following particulars concerning these two specimens. (*A* and *B*) have been supplied to me from Trevandrum:—

	<i>A.</i>		<i>B.</i>	
	ft.	in.	ft.	in.
Length from tip of snout to cleft in flukes ...	9	0	9	4
Do. to origin of dorsal fin .....	4	0	4	2
" flipper .....	2	0	1	1
" genital groove .....	5	6	5	7
" anal groove .....	6	6	6	7
Length of dorsal fin .....	1	6	1	7½
" flukes .....	1	7	1	7
Expanse of flukes .....	2	1	2	6

\* For explanation of the Plates see p. 808.



1. *TURSIOPS DAWSONI*.      2. *NEOPHOCAENA* SP.





SOTALIA LENTIGINOSA.



	A.		B.	
	ft.	in.	ft.	in.
Length of beak from groove which separates the forehead .....		$4\frac{1}{2}$		5
Length of genital groove .....		7		8
„ anal groove .....		2		3
Gape of mouth .....	1	4	1	5
Greatest breadth of body .....	1	6	1	8
„ height of body .....	1	6	1	8
„ circumference in front of dorsal fin .....	3	10	4	0
Smallest circumference at root of tail .....		$1\frac{1}{4}$		$1\frac{3}{4}$
Height of dorsal fin.....	2	$2\frac{1}{2}$	2	3
Length from snout to blow-hole .....	1	0	1	3

As regards shape, the body is rather elongate, with a prominent ridge extending from the back of the dorsal fin to the middle of the flukes. Both the flippers and the dorsal fin are distinctly falcate. The eyelids are well developed and somewhat mobile; while the blow-hole is, as usual, placed somewhat to the left of the middle line. In front of the blow-hole is a fatty cushion, marked off from the moderately tapering beak by an ill-defined V-shaped groove. The lower jaw projects somewhat in advance of its fellow.

The colour of the two specimens is described as follows:—

*A.*—Upper-parts deep glistening black, becoming somewhat lighter below, with a pinkish tinge round the anal and genital apertures; under side of lower jaw and muzzle dull white.

*B.*—Above deep glistening plumbeous black, abruptly passing into pale slaty on the sides; genital and anal regions lighter; lips dull white.

The teeth, which are relatively large, with rugose crowns, number:

$$\frac{25}{24} \text{ and } \frac{26}{25} = 49 \text{ and } 51 \text{ in } A, \text{ and}$$

$$\frac{25}{22} \text{ and } \frac{25}{22} = 47 \text{ in } B.$$

The vertebrae, of which the first two are in each case fused together, number:

$$C. 7, D. 12, L. 20, Ca. 25 = 64 \text{ in } A, \text{ and}$$

$$C. 7, D. 12, L. 17, Ca. 28 = 64 \text{ in } B.$$

The first four pairs of ribs are two-headed.

The pterygoids are in contact, and the mandibular symphysis is short.

The phalanges number:

$$I. 2, II. 9, III. 7, IV. 3, V. 2 \text{ in } A, \text{ and}$$

$$I. 3, II. 9, III. 7, IV. 3, V. 2 \text{ in } B.$$

Both specimens evidently belong to the same species, and from the general contour of the head, body, fin, and flippers, coupled

with the number of vertebræ and teeth, the large size of the latter, the presence of four pairs of double-headed ribs, and the approximation of the pterygoids, there can be little hesitation in referring that species to the genus *Tursiops*.

As regards comparison, I think it will simplify matters to reproduce, with some slight modification, the synopsis of the species of the genus given in my above-mentioned paper in the Society's 'Proceedings' for 1905:—

1. *Tursiops tursio*.

Type specimen: Teeth  $\frac{22}{25} = 44$ .

Vertebræ: C. 7, D. 13, L. 17, Ca. 27 = 64.

Pterygoids in contact.

2. *Tursiops abusalam*.

Type specimen: Teeth  $\frac{26}{26} = 52$ .

Vertebræ: C. 7, D. 12, L. 16, Ca. 26 = 61.

Pterygoids (?) in contact.

Indian specimen: Teeth  $\frac{27}{27}$  and  $\frac{27}{26} = 54$  and 53.

Vertebræ: C. 7, D. 13, L. 15, Ca. 25 = 60.

Pterygoids divergent.

3. *Tursiops catalania*.

Type specimen: Teeth  $\frac{25}{25} = 50$ .

Vertebræ: C. 7, D. 12, L. 15, Ca. 24 = 58.

Pterygoids divergent (?).

Indian specimen\*: Teeth  $\frac{25}{25}$  and  $\frac{26}{25} = 50$  and 51.

Vertebræ: C. 7, D. 13, L. 17, Ca. 24 = 61.

Pterygoids divergent.

4. *Tursiops parvimanus*.

Teeth  $\frac{25}{24} = 49$ .

Vertebræ = 62.

5. *Tursiops gilli*.

Type specimen: Teeth  $\frac{22}{22}$  and  $\frac{23}{22} = 44$  and 45.

Vertebræ (?).

Indian specimen: Teeth  $\frac{27}{28}$  and  $\frac{26}{27} = 55$  and 53, or (in young)  $\frac{24}{25}$  and  $\frac{24}{26} = 49$  and 50.

Vertebræ: C. 7, D. 12, L. 16, Ca. 23 = 58.

Pterygoids divergent.

If the foregoing identifications be correct, we shall have the

\* *Tursiops fergusonii*, Lydekker.

following external characters of the four definable species of *Tursiops* included in the above list:—

1. *Tursiops tursio*. European Seas.  
Size large: 9 ft. 6 in.  
Upper surface blackish.  
Under-parts white and unspotted.
2. *Tursiops abusalam*. Red Sea and Indian Ocean.  
Size smaller: 7 ft. 2½ in. (type), 6 ft. 11 in. (India).  
Upper surface dark greenish.  
Under-parts whitish and spotted with green in adult;  
whitish in young.
3. *Tursiops catalania*. N. Australia to Indian Ocean.  
Syn. (?) *T. fergusonii*.  
Size about the same as last: 7 ft. 8 in. (type), 7 ft. 4½ in. (India).  
Upper surface dark slate.  
Under-parts yellowish \*, flecked with lead-colour.
4. *Tursiops gilli*. N. Pacific to Indian Ocean.  
Size, Indian specimen, 6 ft. 8 in.  
Whole surface blackish, tending to lighten slightly on the under-parts, with a tinge of reddish in Indian specimens.

In addition to the above, Mr. F. Lahille † has described (without reference to my paper) a Bottle-nosed Dolphin from the La Plata estuary under the name of *Tursiops gephyreus*, of which the leading characteristics are as follows:—

$$\text{Teeth } \frac{23}{22} = 45.$$

Vertebrae: C. 7, D. 13, L. 17, Ca. 24 = 61.

Pterygoids divergent.

Phalanges: I. 1, II. 7, III. 6, IV. 2, V. 1.

Size, large, about 7 ft. 2 inches (276 cm.).

General colour leaden grey, becoming somewhat lighter on the under-parts; three or four reddish circles on the sides in advance of the vent.

Mr. Lahille considers his Bottle-nose as nearly allied to *T. catalania*, of which it may indeed be only a large race. In addition to its size and colouring, and slight differences in the number of the teeth and vertebrae, it is distinguished by its narrower beak and præmaxillæ and much broader temporal region.

That the new Indian Bottle-nose (Pl. XLIV. fig. 1) is quite distinct from *T. tursio*, *T. catalania*, and *T. abusalam*, in all of which the under-parts are light-coloured, is certain. In general colour it agrees much more closely with the Travancore specimen

\* In the type the under-parts are described as whitish; if the orange tint of the Travandrum specimens is a specific character, then the name *T. fergusonii* will be available for the Indian form.

† An. Mus. Nac. Buenos Aires, ser. 3, vol. ix. p. 347, 1908.